

What is claimed is:

1. A print generating device for hiddenly embedding first information in an image to acquire an information-attached image and generating a print on which said information-attached 5 image is recorded, comprising:

embedding means for hiddenly embedding the first information in the image; and

information attaching means for attaching second information, which indicates that said first information is 10 embedded in said image, to said print.

2. The print generating device as set forth in claim 1, wherein said information attaching means is means to attach said second information to said print by hiddenly embedding said second information in said image in a different embedding manner 15 than the manner in which said first information is embedded.

3. The print generating device as set forth in claim 1, wherein said information attaching means is means to attach said second information to said print by a visual mark.

4. An information detecting device comprising:

20 input means for receiving photographed-image data obtained by photographing an arbitrary print, which includes said print generated by said print generating device as set forth in claim 2, with image pick-up means;

judgment means for judging whether or not second 25 information, which indicates that first information is embedded in an image, is detected from said photographed-image data; and

processing means for performing a process for detection of said first information on only the photographed-image data from which said second information is detected.

5 5. The information detecting device as set forth in claim 4, further comprising distortion correction means for correcting geometrical distortions contained in said photographed-image data when said processing means is means to perform detection of said first information as a process for
10 detection of said first information;

 wherein said judgment means and said processing means are means to perform said judgment and said detection on the photographed-image data corrected by said distortion correction means.

15 6. The information detecting device as set forth in claim 5, wherein said distortion correction means is a means for correcting geometrical distortions caused by a photographing lens provided in said image pick-up means and/or geometrical distortions caused by a tilt of an optical axis of said
20 photographing lens relative to said print.

 7. The information detecting device as set forth in claim 4, wherein said processing means is a means for performing a process of transmitting said photographed-image data to a device that detects said first information, as a process for
25 detection of said first information, and is a means for transmitting said photographed-image data to said device that

detects said first information, only when said judgment means detects said second information from said photographed-image data.

8. An information detecting device comprising:

5 input means for receiving photographed-image data obtained by photographing an arbitrary print, which includes said print generated by said print generating device as set forth in claim 3, with image pick-up means; and

processing means for performing a process for

10 detection of said first information.

9. The information detecting device as set forth in claim 8, further comprising distortion correction means for correcting geometrical distortions contained in said photographed-image data when said processing means is a means 15 for performing detection of said first information as a process for detection of said first information;

wherein said processing means is a means for performing said process for detection on the photographed-image data corrected by said distortion correction means.

20 10. The information detecting device as set forth in claim 9, wherein said distortion correction means is a means for correcting geometrical distortions caused by a photographing lens provided in said image pick-up means and/or geometrical distortions caused by a tilt of an optical axis of said 25 photographing lens relative to said print.

11. The information detecting device as set forth

in claim 4, wherein said image pick-up means is a camera provided in a portable terminal.

12. The information detecting device as set forth in claim 4, wherein said image pick-up means is equipped with 5 display means for displaying said print to be photographed, tilt detection means for detecting a tilt of an optical axis of said image pick-up means relative to said print, and display control means for displaying information representing the tilt of said optical axis detected by said tilt detection means, on said 10 display means.

13. The information detecting device as set forth in claim 4, wherein said first information is location information representing a storage location of audio data correlated with said image, and which further comprises audio 15 data acquisition means for acquiring said audio data, based on said location information.

14. A print generating method comprising the steps of:

embedding first information in an image hiddenly and 20 acquiring an information-attached image;

generating a print on which said information-attached image is recorded; and

attaching second information, which indicates that said first information is embedded in said image, to said print.

25 15. The print generating method as set forth in claim 14, wherein said second information is attached to said print

by hiddenly embedding said second information in said image in a different embedding manner from the manner in which said first information is embedded.

16. An information detecting method comprising the 5 steps of:

receiving photographed-image data obtained by photographing an arbitrary print, which includes said print generated by the method as set forth in claim 15, with image pick-up means;

10 judging whether or not second information, which indicates that first information is embedded in an image, is detected from said photographed-image data; and

15 performing a process for detection of said first information on only the photographed-image data from which said second information is detected.

17. A program for causing a computer to execute:

a procedure of embedding first information in an image hiddenly and acquiring an information-attached image;

20 a procedure of generating a print on which said information-attached image is recorded; and

a procedure of attaching second information, which indicates that said first information is embedded in said image, to said print.

18. The program as set forth in claim 17, wherein 25 said procedure of attaching said second information to said print is a procedure of attaching said second information to said print

20 10 15
by hiddenly embedding said second information in said image in
a different embedding manner from the manner in which said first
information is embedded.

19. A program for causing a computer to execute:

5 a procedure of receiving photographed-image data
obtained by photographing an arbitrary print, which includes
said print generated by the program as set forth in claim 18,
with image pick-up means;

10 a procedure of judging whether or not second
information, which indicates that first information is embedded
in an image, is detected from said photographed-image data; and

a procedure of performing a process for detection of
said first information on only the photographed-image data from
which said second information is detected.